

AMENDMENTS TO THE CLAIMS

The below listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended) A refrigerant cycle apparatus ~~constituted by~~, using carbon dioxide as a refrigerant, sequentially connecting a compressor, a gas cooler, throttling means and an evaporator, comprising:

an auxiliary cooling circuit which once releases heat from a refrigerant discharged from the compressor and then returns the refrigerant to the compressor, and a fan which ventilates the auxiliary cooling circuit and the gas cooler, wherein the auxiliary cooling circuit has substantially the same ventilation area, in the fan ventilation direction, as that of the gas cooler;

said compressor including first and second compression elements, wherein the refrigerant compressed by the first compression element and discharged is sucked into the second compression element through the auxiliary cooling circuit, compressed and discharged to the gas cooler; and

an internal heat exchanger receiving high pressure coolant flowed out from the gas cooler and discharging said high pressure coolant to the throttling means, for exchanging heat from said high pressure coolant with low pressure coolant flowing from the evaporator, wherein said high pressure coolant has a supercritical pressure.

2. (Original) The refrigerant cycle apparatus according to claim 1, wherein the gas cooler is arranged on the upstream side of the auxiliary cooling circuit with respect to ventilation by the fan.

3. (Cancelled)

4. (Currently Amended) The refrigerant cycle apparatus according to claim 1, ~~claim 2 or claim 3~~, wherein the auxiliary cooling circuit and the gas cooler are constituted of micro-tube heat exchangers.

5. (Cancelled)

6. (Currently Amended) The refrigerant cycle apparatus according to ~~claim 3~~claim 1, wherein the compressor includes more than two compression elements.